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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,224	12/15/2003	Scott Allan Woodford	076574.00007	3899

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EXAMINER

NGUYEN, TU X

ART UNIT	PAPER NUMBER
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2618

MAIL DATE	DELIVERY MODE
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08/07/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/735,224	Applicant(s) WOODFORD, SCOTT ALLAN	
	Examiner Tu X. Nguyen	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-17 and 19 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-17 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's arguments, dated 6/21/07, have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7-17 and 19, are rejected under 35 U.S.C. 103(a) as being unpatentable over Richards et al. (US Patent 7,207,054) in view of Hirschi et al. (US Patent 4470015).

Regarding claim 1, Smith et al. disclose a low-noise block (LNB) control device capable of controlling modulation of an alternating waveform on a direct current (DC) voltage from a DC power supply to an LNB amplifier, said LNB control device comprising:

an LNB signalling module for providing a switch control signal and a modulating waveform (see col.5 lines 9-40); and

a switch circuit for selectively sending said modulating waveform (see col.5 lines 34-37) to a summing circuit external to said LNB control device according to said switch control signal,

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wherein said summing circuit adds said modulating waveform to said DC voltage (see col.6 lines 50-52).

Smith discloses summing circuit includes a resistor, a capacitor and a transistor (see fig.3, elements 132, 90 80). However, Smith fails to disclose a transistor is a Darlington transistor type.

Hirschi et al. disclose a Darlington transistor (see col.27 lines 35-36). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Smith with the above teaching of Hirschi et al. in order to provide a fast switching signal.

Regarding claim 2, the modified Smith et al. disclose said LNB control device further includes a power supply control module for receiving a power supply feedback signal from said DC power supply (see Smith, col.2 lines 35-38), and for sending a control signal to said DC power supply in response to said received power supply feedback signal (see Smith, col.2 lines 36-46).

Regarding claims 3 and 16, the modified Smith et al. disclose said LNB control device further includes a high impedance resistor (see Smith, fig.4, element 132).

Regarding claims 4 and 17, the modified Smith et al. disclose said LNB control device further includes a modulating voltage source and an offset voltage source (see Smith, col.6 lines 28-38).

Regarding claims 5 and 15, the modified Smith et al. disclose said switch circuit includes at least one transistor (see Smith, fig.3, element 80).

Regarding claims 7 and 19, the modified Smith et al. disclose a Darlington transistor (see Hirschi et al., col.27 lines 35-36).

Regarding claim 8, the modified Smith et al. disclose said LNB control device is further coupled to a filter (see Smith, col.6 lines 60-61).

Regarding claims 9 and 12, the modified Smith et al. disclose filter includes an inductor and resistor (see Smith, fig.3, elements 84, 132).

Regarding claims 10 and 13, the modified Smith et al. disclose said filter includes a capacitor (see Smith, fig.3, element 90).

Regarding claim 11, Smith et al. disclose a satellite receiver comprising:

a DC power supply for providing a DC signal (see col.4 lines 1-5);

a filter circuit, coupled to said DC power supply, for filtering said DC signal (see col.6 lines 60-61);

a low-noise block (LNB) control device, coupled to said DC power supply, for providing a power supply control signal to and receiving a power supply feedback signal from said DC power supply (see fig.3), and

for generating a modulating signal; and a summing circuit, coupled to said LNB control device, for adding said modulating signal to said DC signal (see col.8 lines 41-55).

Smith discloses summing circuit includes a resistor, a capacitor and a transistor (see fig.3, elements 132, 90 80). However, Smith fails to disclose a transistor is a Darlington transistor type.

Hirschi et al. disclose a Darlington transistor (see col.27 lines 35-36). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

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was made to modify the system of Smith with the above teaching of Hirschi et al. in order to provide a fast switching signal.

Regarding claim 14, the modified Smith et al. disclose said LNB control device further includes a power supply control module for receiving said power supply feedback signal from said DC power supply (see Smith, col.8 lines 41-55), and for sending said power supply control signal to said DC power supply in response to said received power supply feedback signal (see Smith, col.8 lines 41-55); an LNB signalling module for providing a switch control signal and said modulating waveform (see Smith, col.5 lines 29-40); and a switch circuit for selectively sending said modulating waveform to said summing circuit according to said switch control signal (see Smith, 4 lines 16-33).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Nguyen whose telephone number is 571-272-7883.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



August 2, 2007